WHAT IS CLAIMED IS:

1. A motor having a substantially cylindrical stator disposed coaxially to a substantially cylindrical rotor having permanent magnets; the stator comprising:

a stator core having teeth projecting towards the rotor, each tooth comprising a tooth body which is substantially parallel to a central axis of the stator and on which a coil is wound and a tooth tip having a substantially arc-shaped surface, the tooth tip facing the rotor through the substantially arc-shaped surface and not having a coil wound thereon; wherein the coil is accommodated in a slot between adjacent teeth and a magnetic field is produced by an alternating current flowing in the coil;

wherein the stator core includes two types of steel plate laminated in an axial direction, the centers of the tooth tips of the two types of steel plate with respect to a circumferential direction are offset in the circumferential direction from the center with respect to the circumferential direction of the tooth body.

2. The motor as defined in Claim 1, wherein the tooth body has a substantially symmetrical shape with respect to a center plane extending towards the central axis of the stator; and the tooth tips of the two types of steel plate display symmetry with respect to the center plane of the tooth body when viewed along the central axis of the stator.

3. The motor as defined in Claim 2, wherein the two types of steel plate are disposed in an inversion relationship and one type of steel plate is obtained by turning another type of steel plate back to front.

4. The motor as defined in Claim 1, wherein a substantially equal number of the two types of steel plates is laminated, and the centers of the tooth tips of the two types of steel plate are spaced 180/lcm(p,t)° from each other in the circumferential direction relative to the central axis of the stator; where, lcm (p,t) is the lowest common multiple of the number of teeth t of the stator and p is the number of magnetic poles of the rotor.

5. The motor as defined in Claim 1, wherein the two types of steel plate comprise a plate in which the tooth tip projects towards a slot from the tooth body in a circumferential direction and a plate in which the tooth tip projects towards another slot in an opposite direction.

6. The motor as defined in Claim 1, wherein the coil is wound in concentrated windings on the tooth body.

7. The motor as defined in Claim 1, wherein the stator comprises a plurality of divided cores integrated into a cylindrical shape.

8. The motor as defined in Claim 1, wherein the tooth body has a substantially symmetrical shape with respect to a central plane extending towards the central axial of the stator, and the centers of the tooth tips of the two types of steel plate are offset from the central plane of the tooth body by the same angle in a circumferential direction relative to the central axis of the stator.

9. The motor as defined in Claim 8, wherein the stator core comprises yet another type of steel plate and the center of the tooth tip of said another type of steel plate in a circumferential direction is positioned on the central plane of the tooth body.

10. The motor as defined in Claim 9, wherein the number of laminated plates of said another type of steel plate is equal to the sum of the number of laminated plates of the first two types of steel plates; and the center of the tooth tip of the respective two types of steel plate is offset from the center of the tooth tip of said another type of steel plate by 180/lcm (p,t)° in a circumferential direction relative to the central axis of the stator; where lcm (p,t) is the lowest common multiple of the number of teeth t of the stator and p is the number of magnetic poles of the rotor.